

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1
1.

(Currently Amended) A semiconductor device comprising:

at least one transistor;

at least one interlayer insulating film formed over said transistor, said interlayer insulating film having at least one contact hole;

an embedded conductive layer provided to fill said contact hole wherein a top surface of said embedded conductive layer is flush with a top surface of said interlayer insulating film; and

a reflective pixel electrode having a flat upper surface thereon, formed on said interlayer insulating film wherein said reflective pixel electrode is electrically connected to said transistor through said embedded conductive layer,

wherein the embedded conductive layer comprises a conductive material dispersed in a medium, ~~the conductive material dispersed in a medium~~, the conductive material being selected from the group consisting of carbon, zinc oxide, aluminum, and nickel.

6
2.

(Currently Amended) A semiconductor device comprising:

at least one transistor;

at least one interlayer insulating film comprising an organic resin formed over said transistor, said interlayer insulating film having at least one contact hole;

an embedded conductive layer provided to fill said contact hole wherein a top surface of said embedded conductive layer is flush with a top surface of said interlayer insulating film; and

a reflective pixel electrode having a flat upper surface thereon, formed on said interlayer insulating film wherein said reflective pixel electrode is electrically connected to said transistor through said embedded conductive layer,

wherein the embedded conductive layer comprises a conductive material dispersed in a medium, ~~the conductive material dispersed in a medium~~, the conductive material being selected from the group consisting of carbon, zinc oxide, aluminum, and nickel.

⁹
~~8~~. (Currently Amended) A semiconductor device comprising:

- at least one transistor;
- a first interlayer insulating film formed over said transistor;
- a drain electrode formed on said first interlayer insulating film and electrically connected to a drain of said transistor through an opening of said first interlayer insulating film;
- a second interlayer insulating film formed over said drain electrode and said first interlayer insulating film;
- a capacitor forming electrode formed on said second interlayer insulating film to form a capacitor between said drain electrode and said capacitor forming electrode;
- a third interlayer insulating film formed over said capacitor forming electrode and said second interlayer insulating film;
- a contact hole opened through said third and second interlayer insulating films to reach said drain electrode;
- an embedded conductive layer filled in said contact hole; and
- a reflective pixel electrode formed on said third interlayer insulating film, wherein said reflective pixel electrode is electrically connected to said drain electrode through said embedded conductive layer,

wherein a cross sectional shape of the contact hole is tapered, and

wherein the embedded conductive layer comprises a conductive material dispersed in a medium, ~~the conductive material dispersed in a medium~~, the conductive material being selected from the group consisting of carbon, zinc oxide, aluminum, and nickel.

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~~A.~~ (Currently Amended) A semiconductor device comprising:

at least one transistor;

a first interlayer insulating film formed over said transistor;

a drain electrode formed on said first interlayer insulating film and electrically connected to a drain of said transistor through an opening of said first interlayer insulating film;

a second interlayer insulating film formed over said drain electrode and said first interlayer insulating film;

a capacitor forming electrode formed on said second interlayer insulating film to form a capacitor between said drain electrode and said capacitor forming electrode;

a third interlayer insulating film comprising an organic resin formed over said capacitor forming electrode and said second interlayer insulating film;

a contact hole opened through said third and second interlayer insulating films to reach said drain electrode;

an embedded conductive layer filled in said contact hole; and

a reflective pixel electrode formed on said third interlayer insulating film, wherein said reflective pixel electrode is electrically connected to said drain electrode through said embedded conductive layer,

wherein a cross sectional shape of the contact hole is tapered, and

wherein the embedded conductive layer comprises a conductive material dispersed in a medium, ~~the conductive material dispersed in a medium~~, the conductive material being selected from the group consisting of carbon, zinc oxide, aluminum, and nickel.

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~~5.~~ (Previously Presented) A semiconductor device comprising:

at least one transistor;

a first interlayer insulating film comprising an organic resin formed over said transistor, said interlayer insulating film having at least one contact hole;

an embedded conductive layer provided to fill said contact hole wherein a top surface of said embedded conductive layer is flush with a top surface of said interlayer insulating film; and

a reflective pixel electrode having a flat upper surface thereon, formed on said interlayer insulating film wherein said reflective pixel electrode is electrically connected to said transistor through said embedded conductive layer, wherein said embedded conductive layer comprises a same resin as said resin of the interlayer insulating film.

6.-15. (Canceled)

35

~~16.~~ (Previously Presented) A semiconductor device according to any one of claims ~~1 and 47-50~~, further comprising an alignment film.

1

17.-21. (Canceled)

36

~~22.~~ (Previously Presented) A semiconductor device according to claim 1, 2, 3, 4, 5, or ~~47-50~~ wherein said device is a display device of a cellular phone.

1

37

~~23.~~ (Previously Presented) A semiconductor device according to claim 1, 2, 3, 4, 5, or ~~47-50~~ wherein said device is a display device of a camcorder.

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~~24.~~ (Previously Presented) A semiconductor device according to claim 1, 2, 3, 4, 5, or ~~47-50~~ wherein said device is a display device of a portable computer.

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³⁹
~~25.~~ (Previously Presented) A semiconductor device according to claim 1, 2, 3,
^{19, 24, 27, OR 32,}
4, 5, ~~or 47-50~~ wherein said device is a display device of a head mounting display.
^

⁴⁰
~~26.~~ (Previously Presented) A semiconductor device according to claim 1, 2, 3,
^{19, 24, 27, OR 32,}
4, 5, ~~or 47-50~~ wherein said device is a display device of a rear type projector.
^

⁴¹
~~27.~~ (Previously Presented) A semiconductor device according to claim 1, 2, 3,
^{19, 24, 27, OR 32,}
4, 5, ~~or 47-50~~ wherein said device is a display device of a front type projector.
^

28.-39. (Canceled)

⁴²
~~40.~~ (Previously Presented) A semiconductor device according to any one of
^{1, 19, 24, 27, and 32,}
claim ~~1 and 47-50~~ wherein said device is an EL display device.
^

41.-45. (Canceled)

¹⁸
~~46.~~ (Previously Presented) The semiconductor device according to claim ¹⁷~~5~~
wherein said third interlayer insulating film and said embedded conductive layer both
comprise an acrylic resin.

¹⁹
~~47.~~ (Previously Presented) A semiconductor device comprising:
at least one transistor;
at least one interlayer insulating film formed over said transistor, said interlayer
insulating film having at least one contact hole;
an embedded conductive layer provided to fill said contact hole wherein a top
surface of said embedded conductive layer is flush with a top surface of said interlayer
insulating film; and

a reflective pixel electrode having a flat upper surface thereon, formed on said interlayer insulating film wherein said reflective pixel electrode is electrically connected to said transistor through said embedded conductive layer, wherein said embedded conductive layer comprises an indium tin oxide.

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~~48.~~ (Previously Presented) A semiconductor device comprising:

at least one transistor;

at least one interlayer insulating film comprising an organic resin formed over said transistor, said interlayer insulating film having at least one contact hole;

an embedded conductive layer provided to fill said contact hole wherein a top surface of said embedded conductive layer is flush with a top surface of said interlayer insulating film; and

a reflective pixel electrode having a flat upper surface thereon, formed on said interlayer insulating film wherein said reflective pixel electrode is electrically connected to said transistor through said embedded conductive layer,

wherein said embedded conductive layer comprises an indium tin oxide.

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~~49.~~ (Previously Presented) A semiconductor device comprising:

at least one transistor;

a first interlayer insulating film formed over said transistor;

a drain electrode formed on said first interlayer insulating film and electrically connected to a drain of said transistor through an opening of said first interlayer insulating film;

a second interlayer insulating film formed over said drain electrode and said first interlayer insulating film;

a capacitor forming electrode formed on said second interlayer insulating film to form a capacitor between said drain electrode and said capacitor forming electrode;

a third interlayer insulating film formed over said capacitor forming electrode and said second interlayer insulating film;

a contact hole opened through said third and second interlayer insulating films to reach said drain electrode;

an embedded conductive layer filled in said contact hole; and

a reflective pixel electrode formed on said third interlayer insulating film, wherein said reflective pixel electrode is electrically connected to said drain electrode through said embedded conductive layer,

wherein a cross sectional shape of the contact hole is tapered, and

wherein said embedded conductive layer comprises an indium tin oxide.

³²
~~50~~. (Previously Presented) A semiconductor device comprising:

at least one transistor;

a first interlayer insulating film formed over said transistor;

a drain electrode formed on said first interlayer insulating film and electrically connected to a drain of said transistor through an opening of said first interlayer insulating film;

a second interlayer insulating film formed over said drain electrode and said first interlayer insulating film;

a capacitor forming electrode formed on said second interlayer insulating film to form a capacitor between said drain electrode and said capacitor forming electrode;

a third interlayer insulating film comprising an organic resin formed over said capacitor forming electrode and said second interlayer insulating film;

a contact hole opened through said third and second interlayer insulating films to reach said drain electrode;

an embedded conductive layer filled in said contact hole; and

a reflective pixel electrode formed on said third interlayer insulating film, wherein said reflective pixel electrode is electrically connected to said drain electrode through said embedded conductive layer,

wherein a cross sectional shape of the contact hole is tapered, and

wherein said embedded conductive layer comprises an indium tin oxide.

²
~~51.~~ (Previously Presented) A device according to claim 1, wherein said medium is an organic material.

⁷ ⁶
~~52.~~ (Previously Presented) A device according to claim ~~2~~, wherein said medium is an organic material.

¹⁰ ⁹
~~53.~~ (Previously Presented) A device according to claim ~~3~~, wherein said medium is an organic material.

¹⁵ ¹⁴
~~54.~~ (Previously Presented) A device according to claim ~~4~~, wherein said medium is an organic material.

²⁰ ¹⁹
~~55.~~ (Previously Presented) A device according to claim ~~47~~, wherein said interlayer insulating film comprises an organic material.

²⁵ ²⁴
~~56.~~ (Previously Presented) A device according to claim ~~48~~, wherein said interlayer insulating film comprises an organic material.

²⁸ ²⁷
~~57.~~ (Previously Presented) A device according to claim ~~49~~, wherein at least one of said second and third interlayer insulating films comprises an organic material.

³³
~~58~~. (Previously Presented) A device according to claim ³²~~50~~, wherein at least one of said second and third interlayer insulating films comprises an organic material.

³
~~59~~. (Previously Presented) A device according to claim 1, wherein said medium is an inorganic material.

⁸
~~60~~. (Previously Presented) A device according to claim ⁶~~2~~, wherein said medium is an inorganic material.

¹¹
~~61~~. (Previously Presented) A device according to claim ⁹~~3~~, wherein said medium is an inorganic material.

¹⁶
~~62~~. (Previously Presented) A device according to claim ¹⁴~~4~~, wherein said medium is an inorganic material.

²¹
~~63~~. (Previously Presented) A device according to claim ¹⁹~~47~~, wherein said interlayer insulating film comprises an inorganic material.

²⁶
~~64~~. (Previously Presented) A device according to claim ²⁴~~48~~, wherein said interlayer insulating film comprises an inorganic material.

²⁹
~~65~~. (Previously Presented) A device according to claim ²⁷~~49~~, wherein said first interlayer insulating film comprises an inorganic material.

³⁴
~~66~~. (Previously Presented) A device according to claim ³²~~50~~, wherein said first interlayer insulating film comprises an inorganic material.

⁴
~~67~~. (Previously Presented) A device according to claim 1, wherein said interlayer insulating film comprises an organic material.

⁵
~~68~~. (Previously Presented) A device according to claim 1, wherein said interlayer insulating film comprises an inorganic material.

¹²
~~69~~. (Previously Presented) A device according to claim ⁹~~3~~, wherein said interlayer insulating film comprises an organic material.

¹³
~~70~~. (Previously Presented) A device according to claim ⁹~~3~~, wherein said interlayer insulating film comprises an inorganic material.

²²
~~71~~. (Previously Presented) A device according to claim ¹⁹~~47~~, wherein said interlayer insulating film comprises an inorganic material.

²³
~~72~~. (Previously Presented) A device according to claim ¹⁹~~47~~, wherein said interlayer insulating film comprises an organic material.

³⁰
~~73~~. (Previously Presented) A device according to claim ²⁷~~49~~, wherein said interlayer insulating film comprises an inorganic material.

³¹
~~74~~. (Previously Presented) A device according to claim ²⁷~~49~~, wherein said interlayer insulating film comprises an organic material.